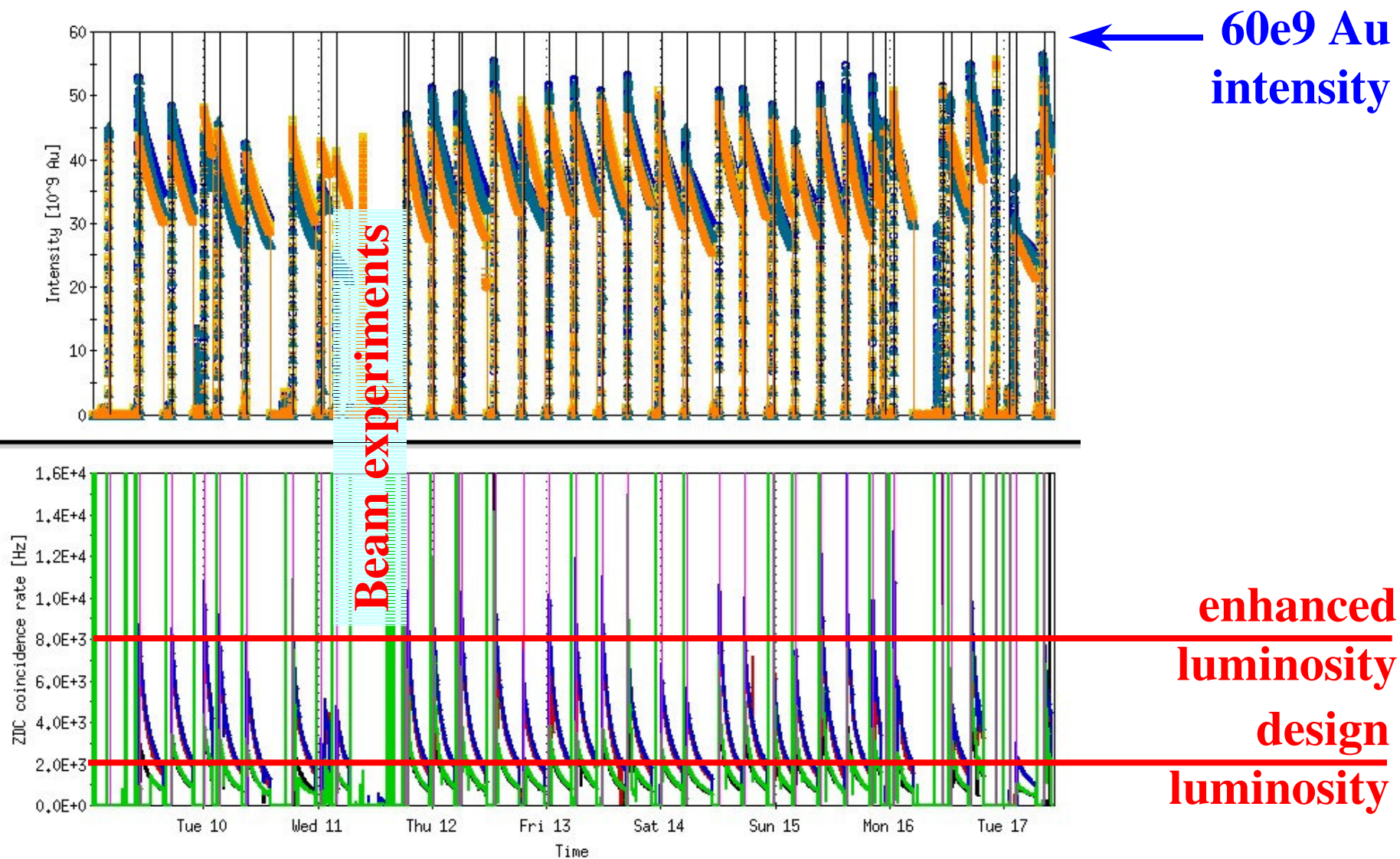# Last week:

Large amount of delivered luminosity
(best calendar week so far)

Problems:

- – PHOBOS background

- – Reliability of ramp orbit correction

- – Bunch intensity not consistently at maximum

- – DX heater fired from BRAHMS operation
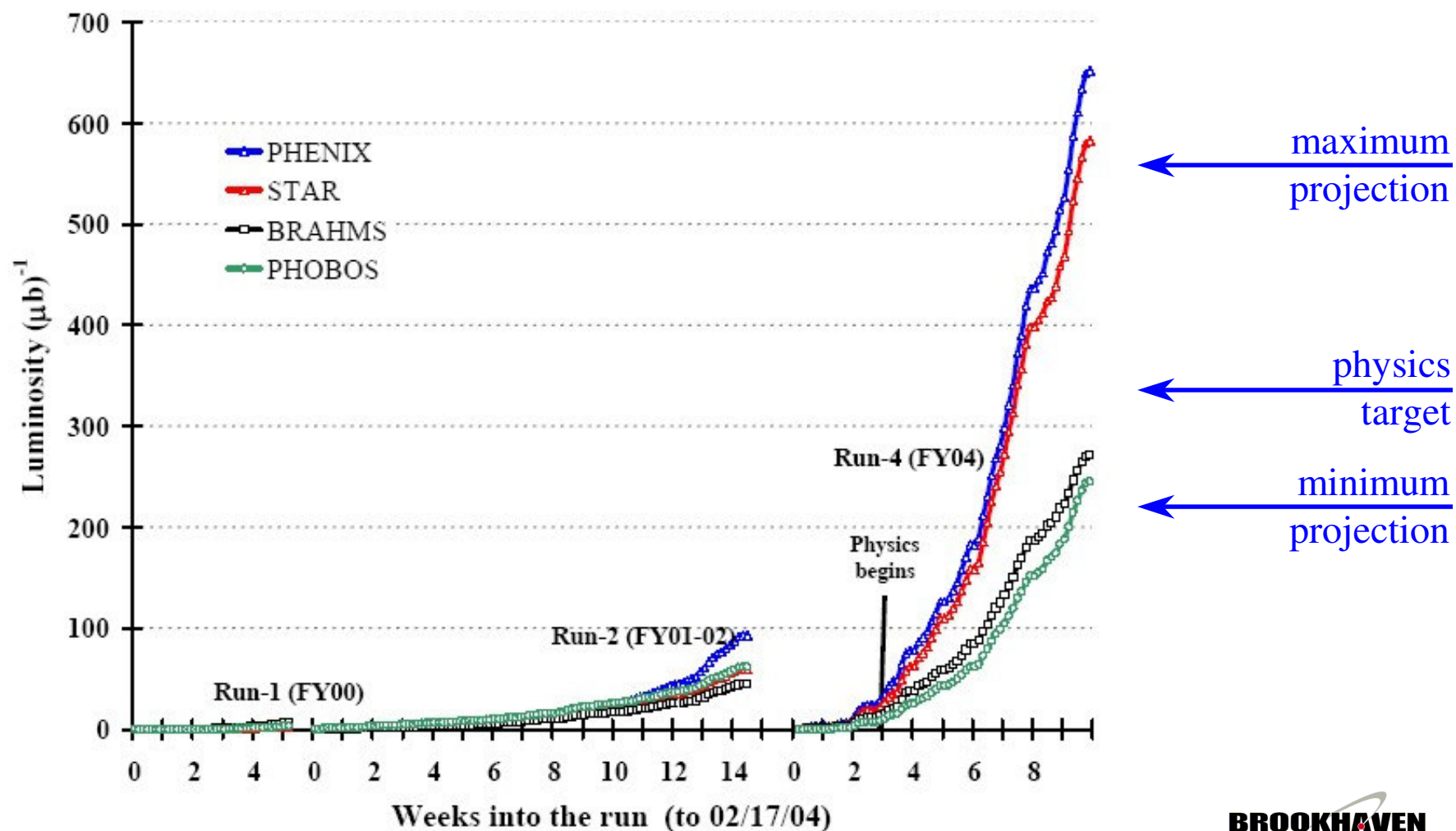
Stores during last week, Monday to Tuesday

Delivered 634 $(\mu b)^{-1}$ to Phenix [week ago : 480]

153 $(\mu b)^{-1}$ last week [best week: 139]

As of 02/15/04 24:00
Star ×0.9
Phobos ×0.3
Brahms ×0.4

maximum
projection

physics
target

minimum
projection
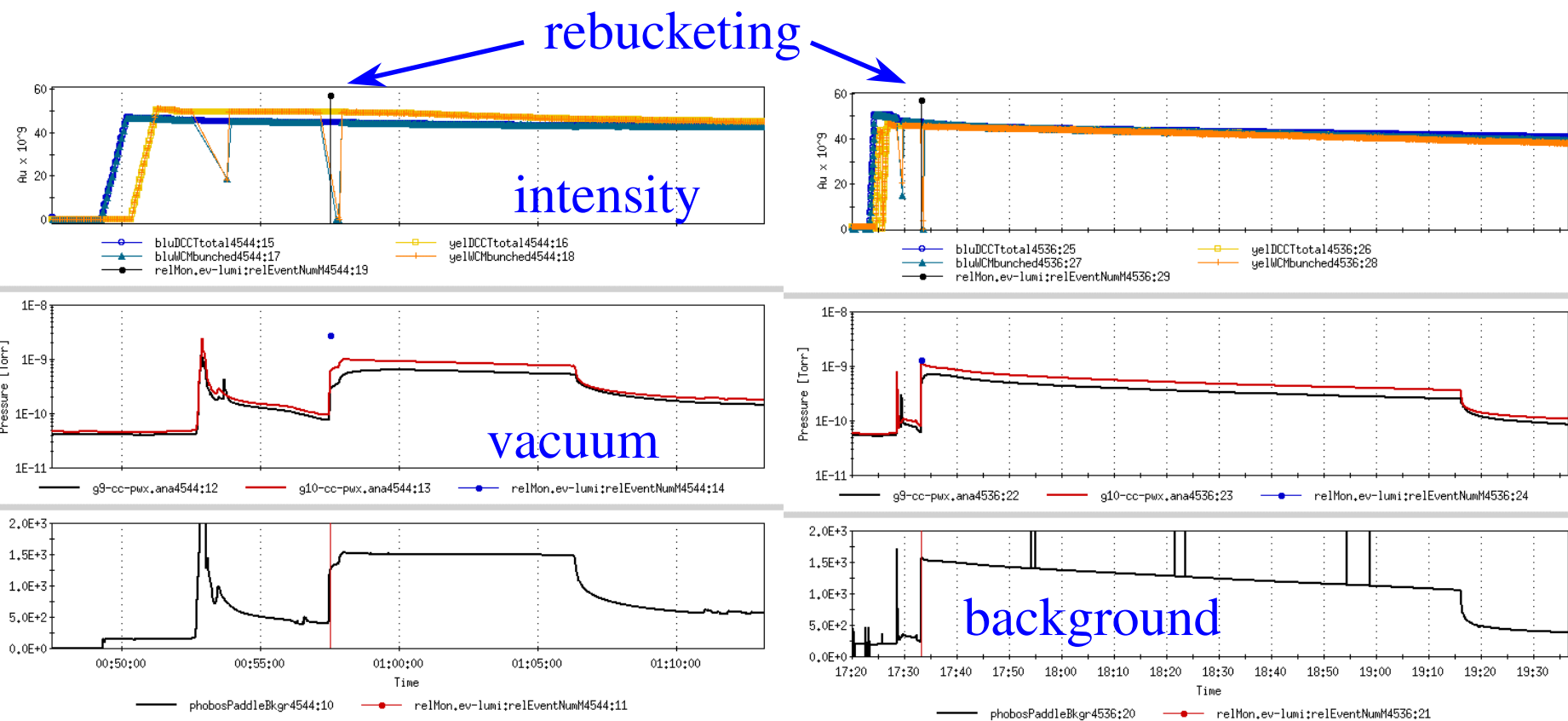
BROOKHAVEN
NATIONAL LABORATORY

3

Some statistics (week 9-Feb to 15-Feb), no maintenance

- No of stores   : 25
  Time in store   : 111hrs (66% of calendar time)

- Average store time   : 4.4hrs

- Av. store-to-store time : 2.0hrs (ex beam exp.)
  Rms store-to-store time: 2.9hrs

- Optimum store length : 2.6hrs (for zero detector turn-on time)

PHOBOS background problem unresolved

rebucketing

intensity

vacuum

background

4544: 8min   4536: 1h 43min

PHOBOS background problem

- ## General features
  - Need certain intensity and good rebucketing
  - Starts at rebucketing
  - Burns out after minutes to 2hrs

- ## Appearance and disappearance is
  - Not well correlated with bunch intensity
  - Not well correlated with peak intensity
  - Possibly correlated with orbit in IR10

Plan

1. Test "bump hypothesis"

   - Complicated by demand for bump (at rebucketing) and no bump (after rebucketing)

   - Need several people, since substantial deviation from standard ramp (difficult last weekend and this week)

   - Need to maintain orbit correction at store

2. Test aligned abort gaps

   - Will reduce PHENIX and BRAHMS luminosity by 7%

Only solution may be a significant luminosity reduction for all experiments.